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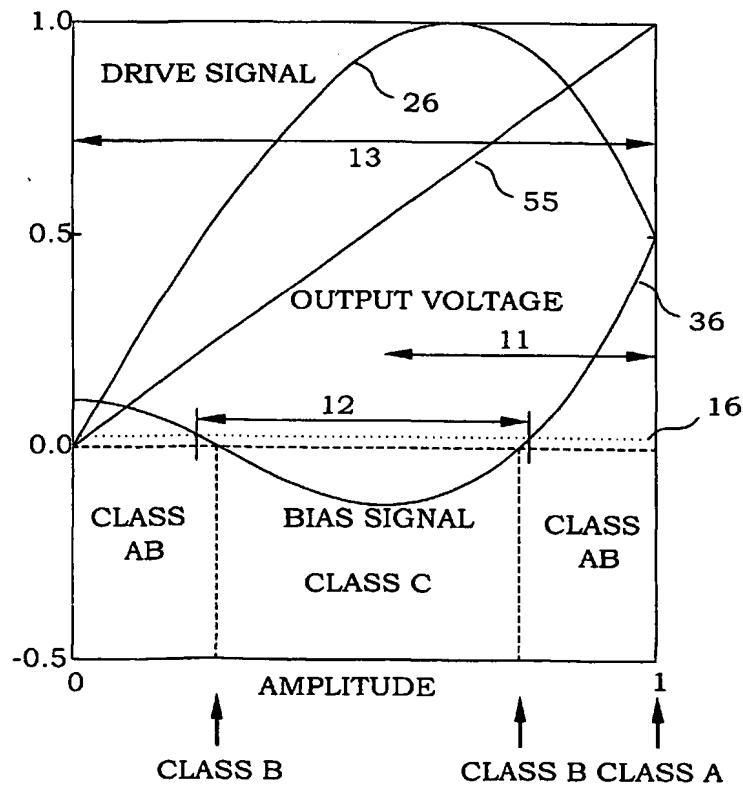
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*[Continued on next page]*

(54) Title: EFFICIENT GENERATION OF RADIO FREQUENCY CURRENTS

**NORM. VOLTAGE**

(57) Abstract: In the present invention, pre-distortion of drive signal (26) and generation of bias signal (36) to a power amplifier are both controlled dependent on an instantaneous size of the input signal, for producing a predetermined gain characteristics. Preferably, the bias signal (36) is kept low in amplitude ranges having a high probability to occur, thus giving a high efficiency, and is allowed to increase towards higher amplitudes, preferably all the way to the maximum amplitude. The pre-distorted drive signal (26) is preferably higher than the input signal in the high-efficiency ranges. Preferably, the drive signal (26) is predominantly composed of low-order components. In cases where signal paths of bias signal (36) and drive signal (26) differs significantly, inverse filtering is applied to ensure the simultaneousness at the input of the amplitude element.

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SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01068

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7: H03F 1/02**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**IPC7: H03F**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

**SE,DK,FI,NO classes as above**

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**EPO-INTERNAL, WPI DATA, PAJ**

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6130579 A (NATHAN R. IYER ET AL), 10 October 2000 (10.10.00), see whole document  --	1-43
A	EP 1075081 A2 (THE WHITAKER CORPORATION), 7 February 2001 (07.02.01), see whole document  -----	1-43

 Further documents are listed in the continuation of Box C. See patent family annex.

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- "&" document member of the same patent family

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6130579 A	10/10/00	US 6285239 B	04/09/01
EP 1075081 A2	07/02/01	JP 2001024455 A US 6427067 B	26/01/01 30/07/02